WHAT IS CLAIMED IS:

1. An image processing apparatus employing an error distribution process to convert an image represented with multiple values into an image provided in binary representation, comprising:

an input block subtracting from data of a target pixel successively input an error from a neighboring pixel;

a thresholding block thresholding and outputting said data of said target pixel subjected to a subtraction in said input block;

an error calculation block subtracting from a thresholded value output from said thresholding block a value corresponding to said data of said target pixel having been subjected to said subtraction in said input block and not yet thresholded, to obtain an error; and

an error operation block multiplying said error obtained in said error calculation block by a distribution weighting coefficient to calculate an error to be distributed to a neighboring pixel before said neighboring pixel is processed,

wherein said distribution weighting coefficient simply decreases and ultimately reaches zero as a distance from said target pixel increases, and a distance extending to attain zero varies with direction.

2. The image processing apparatus of claim 1, an image processing results in an output image having a first image pattern introduced therein and said thresholding block adds to a threshold value used in said thresholding block a second image pattern related to said first image pattern.

3. The image processing apparatus of claim 2, wherein said second image pattern is analogous to said first image pattern.

4. The image processing apparatus of claim 2, wherein said second image pattern has a predetermined angle relative to said first image pattern.

5. The image processing apparatus of claim 1, wherein in processing a color image said distribution weighting coefficient varies for each image of a color obtained by separating an image in color.

6. The image processing apparatus of claim 2, wherein in processing a color image said second image pattern varies for each image of a color obtained by separating an image in color.

7. The image processing apparatus of claim 1, wherein in processing a color image, an image of at least one color obtained by separating an image into each color, is processed by inverting said image in direction, applying an error distribution to said image inverted in direction, and thereafter again inverting said image having said error distribution applied thereto.

8. A method of processing an image, employing an error distribution process to convert an image represented with multiple values into an image provided in binary representation, comprising the steps of:

subtracting from data of a target pixel successively input an error from a neighboring pixel;

thresholding and thus outputting said data of said target pixel subjected to a subtraction in said step of subtracting;

subtracting from a thresholded value output a value corresponding to said data of said target pixel successively input and then subjected to said subtraction, to obtain an error; and

multiplying said error by a distribution weighting coefficient to calculate an error to be distributed to a neighboring pixel before said neighboring pixel is processed,

wherein said distribution weighting coefficient simply decreases and ultimately reaches zero as a distance from said target pixel increases, and a distance extending to attain zero varies with direction.

9. The method of claim 8, further comprising the step of adding to

said threshold value a second image pattern related to a first image pattern introduced into an output image as a result of an image processing.

10. The method of claim 8, wherein in processing a color image said distribution weighting coefficient varies for each image of a color obtained by separating an image in color.

11. An image processing apparatus employing an error distribution process to convert an image represented with multiple values into an image provided in binary representation, comprising:

an input block subtracting from data of a target pixel successively input an error from a neighboring pixel;

a thresholding block thresholding and outputting said data of said target pixel subjected to a subtraction in said input block;

an error calculation block subtracting from a thresholded value output from said thresholding block a value corresponding to said data of said target pixel having been subjected to said subtraction in said input block and not yet thresholded, to obtain an error; and

an error operation block multiplying said error obtained in said error calculation block by a distribution weighting coefficient to calculate an error to be distributed to a neighboring pixel before said neighboring pixel is processed,

wherein said distribution weighting coefficient introduces into an output image a pattern formed of lines.

12. An image processing apparatus employing an error distribution process to convert an image represented with multiple values into an image provided in binary representation, comprising:

an input block subtracting from data of a target pixel successively input an error from a neighboring pixel;

a thresholding block thresholding and outputting said data of said target pixel subjected to a subtraction in said input block;

an error calculation block subtracting from a thresholded value

output from said thresholding block a value corresponding to said data of said target pixel having been subjected to said subtraction in said input block and not yet thresholded, to obtain an error; and

an error operation block multiplying said error obtained in said error calculation block by a distribution weighting coefficient to calculate an error to be distributed to a neighboring pixel before said neighboring pixel is processed,

wherein an image pattern related to an image pattern introduced into an output image that is attributed to said distribution weighting coefficient, is added to said data of said target pixel input or said threshold value.

13. An image processing apparatus employing an error distribution process to convert an image represented with multiple values into an image provided in binary representation, comprising:

an input block subtracting from data of a target pixel successively input an error from a neighboring pixel;

a thresholding block thresholding and outputting said data of said target pixel subjected to a subtraction in said input block;

an error calculation block subtracting from a thresholded value output from said thresholding block a value corresponding to said data of said target pixel having been subjected to said subtraction in said input block and not yet thresholded, to obtain an error;

an error operation block multiplying an error obtained from said error calculation block by a distribution weighting coefficient to calculate an error to be distributed to a neighboring pixel before said neighboring pixel is processed, said distribution weighting coefficient simply decreasing as a distance from said target pixel increases; and

a threshold operation block adding to a threshold value used in said thresholding block a second image pattern related to a first image pattern introduced into an output image as a result of an image processing provided by said input block, said thresholding block, said error calculation block and said error operation block.

14. The image processing apparatus of claim 13, wherein said second image pattern is analogous to said first image pattern.

15. The image processing apparatus of claim 13, wherein said second image pattern has a predetermined angle relative to said first image pattern.

16. The image processing apparatus of claim 15, wherein in processing a color image, said second image pattern varies in angle for each image of a color obtained by separating an image in color.

17. The image processing apparatus of claim 13, wherein in processing a color image said distribution weighting coefficient varies for each image of a color obtained by separating an image in color.

18. The image processing apparatus of claim 13, wherein in processing a color image said second image pattern varies for each image of a color obtained by separating an image in color.

19. A method of processing an image, employing an error distribution process to convert an image represented with multiple values into an image provided in binary representation, comprising the steps of:

subtracting from data of a target pixel successively input an error from a neighboring pixel;

thresholding and thus outputting said data of said target pixel subjected to a subtraction in said step of subtracting;

subtracting from said value thresholded and output a value corresponding to said data of said target pixel having been subjected to said subtraction and not yet thresholded, to obtain an error; and

multiplying said error by a distribution weighting coefficient to calculate an error to be distributed to a neighboring pixel before said neighboring pixel is processed, said distribution weighting coefficient simply decreasing as a distance from said target pixel increases,

wherein a series of said steps provides an image processing providing an output image having a first image pattern introduced therein and a second image pattern related to said first image pattern is added to said threshold value.

20. The image processing apparatus of claim 19, wherein said second image pattern has a predetermined angle relative to said first image pattern.

21. The image processing apparatus of claim 20, wherein in processing a color image, said second image pattern varies in angle for each image of a color obtained by separating an image in color.